PIPES –
Arteries of machines

HEART FAILURE THROUGH HARDENING OF ARTERIES!

We have got the solution!

Quick, flexible, environment-friendly, with short downtimes

Deposits in pipes and components result in:

- **increasing friction losses**
- **turbulent instead of laminar flow**
- **rising pumping power and operating costs**
- **decreasing flow volume rate and efficiency**
- **decreasing heat transfer (e.g. in cooling plants)**

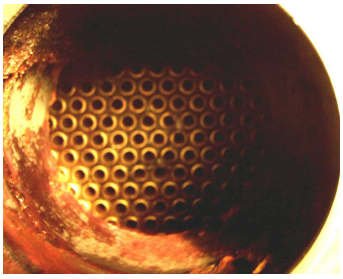
Incrustations such as those arising during the operation of industrial water, hot water, and cooling water systems often consist of lime, rust, and soil particles. Incrustation of pipes using water as the coolant cannot be prevented, only delayed. Incrustations in pipe systems degrade their system parameters.

UGT 2000 GMBH, Bad-Lausick. Phone +49(0)34345 20629 or URL http://www.ugt-2000.de

WHAT WE OFFER YOU

Cleaning of pipe systems

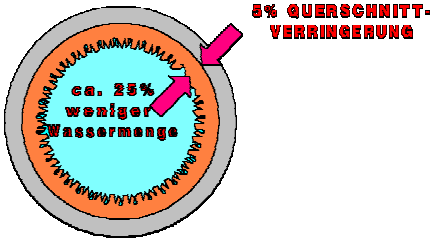
De-scaling of steel



Cleaning of heat exchangers

Cleaning of machine cooling systems

- Cleaning of industrial water, hot water, and cooling water systems
- Cleaning of heat exchangers
- Cleaning of new installations (hydraulic and lubricating systems)
- Inquire about other systems
- Personal consultation
- Analysis of your plant's incrustations
- Project-specific offer
- Flexibility combined with high quality



Your benefits:

- No disassembly
- Low downtimes
- Lower costs than for new construction
- Decrease of operating costs

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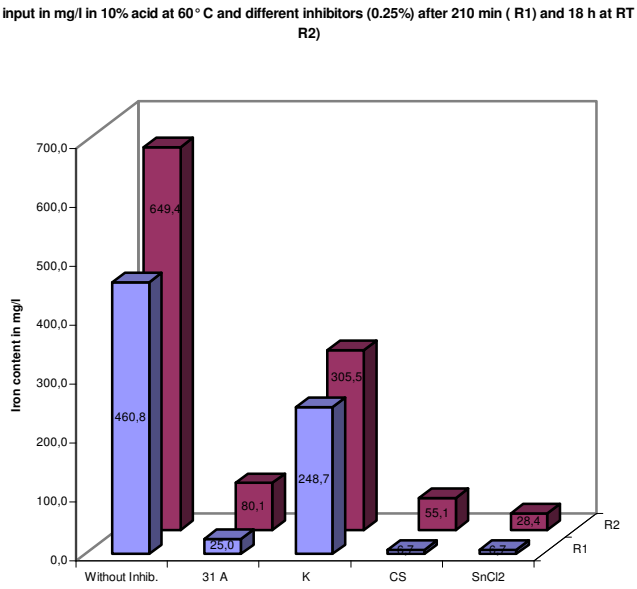
THE PROCESS

We have developed a process based on ecological cleaning agents for internally cleaning components and pipe systems. Combined with a portable plant, cleaning can be done directly on site. This includes pumping environment-friendly cleaning agents through components and pipes until cleaning is sufficient.

The basic idea of the process is fluid motion in pipes or components in connection with environmentally compatible and easily biologically degradable cleaning agents. In addition to this benefit, the cleaning agent exhibits surface-active properties with the result that it directly gets to the surface through minute capillary cracks. Foreign substances are dissolved and suspended by gas formation at the boundary surface.

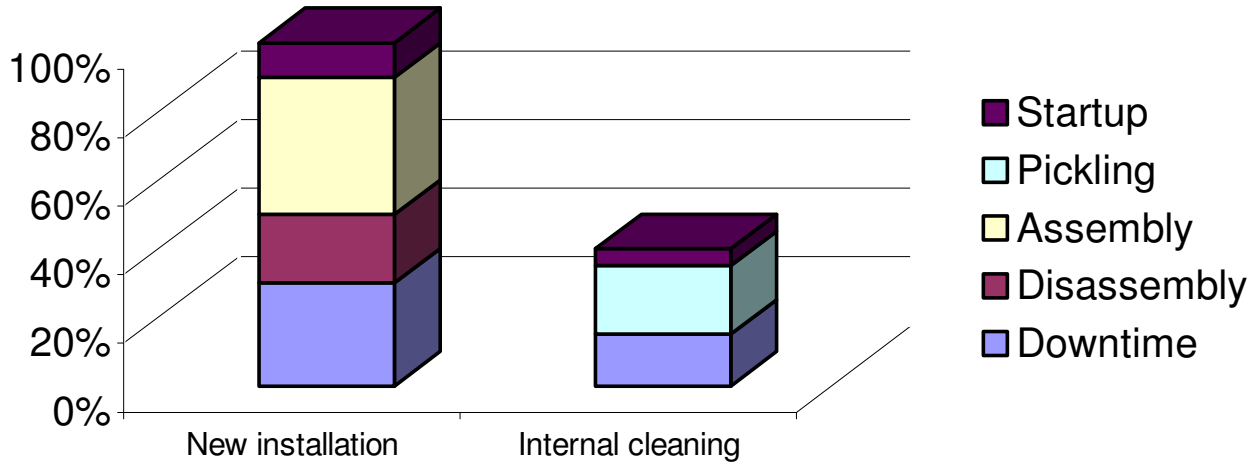
Depending on the strength of incrustation, admixtures are added. This enables not only process-related deposits (lime, rust) occurring in heat exchangers, industrial water plants, cooling circuits, but also assembly-related contaminations (cinder, rust, shavings) occurring in new installations (e.g. in the hydraulic industry) to be removed.

Different inhibitors are added for protecting cleaned surfaces by preventing a chemical attack on the materials used.



Effect of different inhibitors on iron input during cleaning

Owing to cleaning of systems on site in mounted state, costs for disassembly and reassembly as well as for long downtimes can be avoided. Moreover, design states are reached again, which also reduces operating costs in the long run.



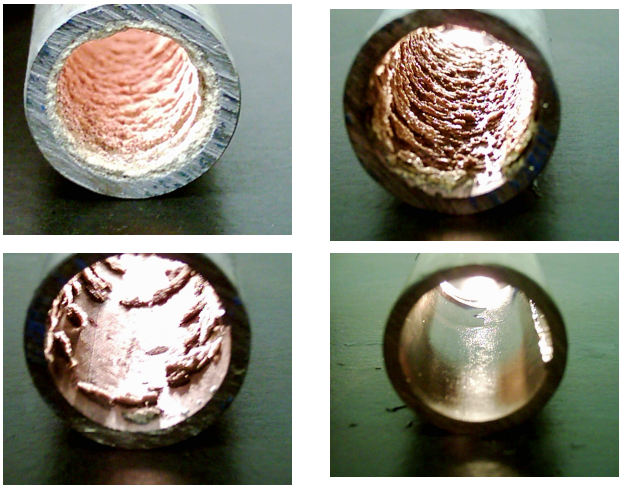
Comparison of costs of new installation and cleaning

Different plants are available for various cleaning cases, with the volume to be cleaned being the decisive factor for selecting cleaning machines.

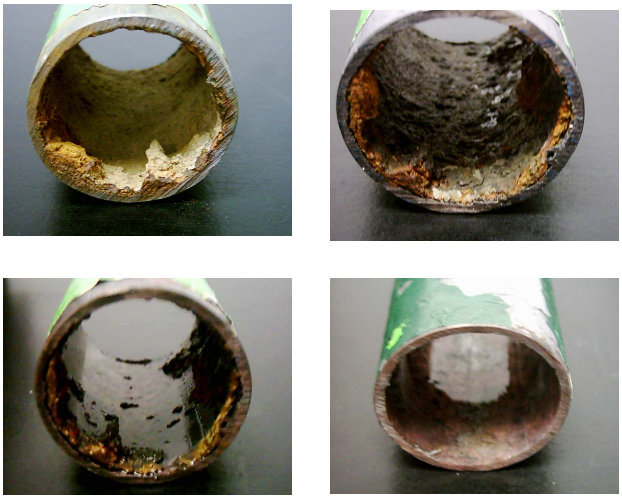
UBA 200
200 l max. volume to be cleaned

UBA 600
600 l max. volume to be cleaned

Aqueous cleaning agents are pumped through the system to be cleaned. This enables all locations to be cleaned with the same success. Incrustations are detached and are carried by the flow out of the system where they are filtered out.



Removal of lime deposits during cleaning



Removal of process-related deposits during cleaning

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Some References:

Cleaning cooling water system

Test section for auxiliary heating systems

Cleaning extrusion plant cooling system

Cleaning mixer cooling system

Cleaning rolling mill rolls cooling system

Cleaning cooling pipes

Descaling vacuum pipes

Cleaning cooling system of sand processing unit

Cleaning compressor cooling system

Cleaning heat exchangers

Descaling hydraulic pipes

PEDDINGHOUSE-GROUP
PSW Brand-Erbisdorf

Descaling hydraulic pipes

Cleaning charge air cooler of peak-load power station

Cleaning metal shop cooler

Krupp Stainless steel profiles Siegen:

- **Cleaning cooling system of blow-torch cutting-off machine**
- **Cleaning cooling system of flange exhaust gas plant**
- **Cleaning cooling system of flange molten bath**

Thyssen Krupp Stahl AG Plant Finnentrop

- **Cleaning cooling system of hot-dip galvanizing system**

Ironworks Hasenclever

- **Cleaning oil cooler of rotary compressors**

Rothenburger Metallwerke

- **Cleaning cooling system of annealing plant**
- **Cleaning well pipe**

Cleaning cooling system of injection molding tools

Descaling welded oil cooler

Cleaning tubular heat exchangers

Cleaning cooling tower installation

Descaling coolant pipe

Cleaning cooling system of extrusion plant

UGT 2000

ALUSTOCKACH
Qualität aus einem GuB

Cleaning chill casting plant cooling system

Cleaning continuous casting plant cooling system

Metawell GmbH
metal sandwich technology

Cleaning production plant cooling system

HÖRMANN

Cleaning cooling system

spot-welding machine